REMARKS

Claims 23-46 are pending in this application. Claims 44-46 are new. Claims 23 and 24 are independent.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 26, 27, 28, 30-33, and 35 contain allowable subject matter.

Specification

The specification has been objected to for having an improper incorporation by reference. Applicant has amended the specification to instead refer to the equivalent U.S. document US 2002/0073787 as required. It is respectfully requested that the objection be withdrawn.

The specification has been objected to for not having appropriate headings. The specification has been amended to include headings as requested. It is respectfully requested that the objection be withdrawn.

Drawings

The drawings have been objected to for their abbreviation "Figur". The drawings have been revised and are submitted herewith as

replacement sheets of drawings. It is respectfully requested that the objection be withdrawn.

Claim Objection

Claim 23 has been objected to due to a misspelling. Accordingly, claim 23 has been amended. It is respectfully requested that the objection be withdrawn.

Claim Rejection – 35 USC 112

Claims 23, 24, 25, 29, 34, 36, and 43 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Accordingly, the claims have been amended to render them definite. It is respectfully requested that the rejection be withdrawn.

Claim Rejection – 35 U.S.C. 103

Claims 24, and 37-43 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kelderman et al. (U.S. Patent 4,844,617, "the '617 patent") in view of Boettner et al. (U.S. Patent 5,880,465, "the '465 patent"). Applicant respectfully traverses this rejection.

The present invention, in a preferred embodiment, is directed to a method and apparatus of optically detecting at least one entity arranged

on a substrate (e.g., substrate 60). The entity is optically scanned using a measuring volume generated by the radiation of a first radiation source (e.g., radiation source 10). Before and/or during the scanning process the entity substantially maintains its position relative to the substrate. In order to also maintain the focal position of the measuring volume along the optical path, an auxiliary focus position (e.g., auxiliary focus 71) is generated by a second radiation source (e.g., radiation source 11). The relative arrangement of the focal position of the measuring volume and the auxiliary focus is known so that adjusting the auxiliary focus will also adjust the measuring focus in the direction of the optical path of the radiation of the first radiation source.

The Office Action appears to rely on Figure 9 of the '617 patent. Figure 9 of the '617 patent shows a confocal measuring microscope having two light sources 18 and 32 both defining the measuring volume. As described in line 61 of column 7 to line 20 of column 9 of the '617 patent, light source 18 is a source of visible light and the second light source 32 emits ultraviolet light. In line 18 of column 8 it is stated that the second light source 32 is optional. Moreover, in lines 19 and 20 of column 8 it is mentioned that the objective 40 focuses the combined visible and ultraviolet light beam to a small spot 42 on object 14. The

small spot 42 is the measured volume according to the method and device of the invention.

Further in the '617 patent, auto focusing is performed by adjusting the object to keep the output signal of the zero order detector 56 at an extreme value, i.e., at a maximum or minimum (see column 9, line 50).

Unlike the invention in the '617 patent, the present invention comprises an auxiliary focus. For example, in the '617 patent, since the second light source 32 is optional, its focus does not constitute a means for adjusting the measuring volume defined by the radiation of light source 18. Thus, the focus of light source 32 does not constitute an auxiliary focus as in the present invention. Moreover, the focus of light source 18 cannot constitute the auxiliary focus of the present invention because the device would then have no measuring volume for scanning the substance to be observed.

Therefore, Applicant submits that the '617 patent fails to teach or suggest at least the claimed step of generating an auxiliary focus by means of at least one second radiation source and an optic. The '465 patent also fails to teach the claimed step of generating an auxiliary focus and thus fails to make up for the deficiency in the '617 patent. These same arguments apply as well to the dependent claims.

Accordingly, Applicant respectfully requests that the rejection be withdrawn.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1. 17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s): Seven (7) Replacement drawing sheets